



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,632	11/27/2001	Kwok Wai Cheung	007198-438	8229

7590 06/28/2007
James A. LaBarre
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

FORD, GRANT M

ART UNIT	PAPER NUMBER
----------	--------------

2141

MAIL DATE	DELIVERY MODE
-----------	---------------

06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/993,632

Applicant(s)

CHEUNG ET AL.

Examiner

Grant Ford

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4-10-2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.
3. The oath or declaration is defective because:
It does not properly identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing. Claim for priority under 35 U.S.C. 119 incorrectly states the date of filing of PCT/IB00/01857 as 13 December, 2001. The Examiner asserts that the date of filing of PCT/IB/00/01857 should read 13 December, 2000.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

Art Unit: 2141

1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1,9-11, and 18 are provisionally rejected on the ground of nonstatutory double patenting over claims 1 and 13 of copending Application No. 09/993,629.

Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1,9-11, and 18 function to claim a subset of subject matter explicitly found in claims 1 and 13 of co-pending application 09/993,629.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2141

7. Claims 1,5-10,and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Liao et al. (The Split and Merge (SAM) Protocol for Interactive Video-on-Demand Systems), hereinafter referred to as SAM.

a. As per claim 1, SAM discloses a method for delivering media to a plurality of media client having a buffer for caching media of a selected media stream within one stream interval and processing capability for playing the media in a multicast media stream through a network, including the steps of:

generating plurality of multicast media streams, wherein each multicast media stream is repeated at regular stream intervals (Page 1350 Column 1, Section 2);

joining the media client to a selected multicast media stream in response to a selection request from the media client (Page 1349, Section 1);

caching the buffer of the media client continuously with unplayed media in the selected multicast media stream (Page 1351 Column 1); and

caching the selected multicast media streams in at least one interactive server, such that interactive requests and/or errors in playing the media in the media client are handled by the interactive server or the media server (Figure 1, Page 1351, Sections 2.1-2.3 – see access node buffering of multicast streams for interactivity capabilities per user request).

b. As per claim 5, SAM discloses generating a dedicated unicast media stream from the media server or the interactive server and delivering to the media client in response to a dedicated interactive request from the media client requesting a dedicated media (Page 1350 – Section 2, Sections 2.1-2.3).

c. As per claim 6, SAM discloses wherein the dedicated unicast media stream is generated from the interactive server if the interactive server contains the dedicated media (Sections 2.1-2.3 – see synch buffer interaction with streams and users).

d. As per claim 7, SAM discloses wherein the dedicated unicast media stream is generated from the media server if the interactive server does not contain the dedicated media (Page 1353 Paragraph 1). The Examiner notes that in the system of SAM if a request for an I stream cannot be fulfilled immediately, the synch buffer awaits a unicast delivery of stream data generated from a video server which is then delivered via unicast to the user.

e. As per claim 8, SAM discloses wherein the dedicated unicast media stream is generated from the interactive server after the dedicated media is delivered from the media server to the interactive server, if the interactive server does not contain the dedicated media (Page 1353 – Paragraph 1 – see access node I stream server request queuing for delivery of streams to a user and I stream playback at the user location).

f. As per claim 9, SAM discloses wherein the interactive request includes any one or more of pause, slow motion, fast forward, rewind, jump forward, and jump backward (Section 1, Sections 2.1-2.3).

g. As per claim 10, SAM discloses a system for delivering media selection to a plurality of media clients having a buffer for caching media of a selected media stream

Art Unit: 2141

within one stream interval and processing capability for playing the media in a multicast media stream through a network, including

at least one media server for generating a plurality of multicast media streams, wherein each multicast media stream is repeated at regular stream intervals, and the media client is joined to a selected multicast media stream in response to a selection request from the media client (Page 1349, Section 1, Page 1350 Column 1, Section 2)

at least one interactive server for caching the selected multicast media stream such that interactive requests and/or errors in playing the media in the media client are handled by the interactive server or the media server (Figure 1, Page 1351, Sections 2.1-2.3 – see access node buffering of multicast streams for interactivity capabilities per user request).

h. As per claim 14, SAM discloses wherein a dedicated unicast media stream is generated from the media server or the interactive server and delivered to the media client in response to a dedicated interactive request from the media client requesting a dedicated media (Page 1350 – Section 2, Sections 2.1-2.3).

i. As per claim 15, SAM discloses wherein the dedicated unicast media stream is generated from the interactive server if the interactive server contains the dedicated media (Sections 2.1-2.3 – see synch buffer interaction with streams and users).

j. As per claim 16, SAM discloses wherein the dedicated unicast media stream is generated from the media server if the interactive server does not contain the

Art Unit: 2141

dedicated media (Page 1353 Paragraph 1). The Examiner notes that in the system of SAM if a request for an I stream cannot be fulfilled immediately, the synch buffer awaits a unicast delivery of stream data generated from a video server which is then delivered via unicast to the user.

k. As per claim 17, SAM discloses wherein the dedicated unicast media stream is generated from the interactive server after the dedicated media is delivered from the media server to the interactive server, if the interactive server does not contain the dedicated media (Page 1353 – Paragraph 1 – see access node I stream server request queuing for delivery of streams to a user and I stream playback at the user location).

l. As per claim 18, SAM discloses wherein the interactive request includes any one or more of pause, slow motion, fast forward, rewind, jump forward, and jump backward (Section 1, Sections 2.1-2.3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 2141

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAM in view of Mandal et al. (5,633,810), hereinafter referred to as Mandal.

a. As per claims 2 and 11, SAM discloses the invention substantially as claimed above. Additionally, SAM discloses wherein interactive requests in the media client are handled by the interactive server (Sections 2.1-2.3). However, SAM fails to explicitly disclose wherein errors in playing the media in the media client are handled by the interactive server.

Mandal teaches wherein errors in playing the media in the media client are handled by an interactive server (Figure 1 element 120, Col 3 lines 50-67, Col 4 lines 15-34). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of error correction by an interactive server with the multicast video-on-demand system of SAM. One of ordinary skill in the art would have been motivated to do so for the purpose of handling bit error correction and packet cell loss (Col 3 lines 60-67).

11. Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over SAM in view of Monta et al. (7,039,048), hereinafter referred to as Monta.

a. As per claims 3 and 12, SAM discloses the invention substantially as claimed above. Additionally, SAM discloses the use of local area networks and the Internet for implementation, which are packet-based networks (Page 1350 – Paragraph 2). However, SAM fails to explicitly disclose that packets of multicast media streams are interleaved randomly.

Monta teaches wherein the media in each multicast media stream is sent in packets of data which are interleaved randomly (Col 27 lines 14-45, Col 28 lines 10 through Col 29 line 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of random interleaving of packets with the multicast video-on-demand system of SAM. One of ordinary skill in the art would have been motivated to do so for the purpose of interleaving multiplex customer data packets based on associated customer data in a request-based environment (Col 28 lines 10 through Col 9 line 5).

12. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAM in view of Moskowitz et al. (5,629,732), hereinafter referred to as Moskowitz.

Art Unit: 2141

a. As per claims 4 and 13, SAM discloses the invention substantially as claimed above. However, SAM fails to explicitly disclose wherein the stream interval is 30 to 60 seconds.

Moskowitz teaches wherein the stream interval is 30 to 60 seconds (Fig. 11C-11D, Col 10 lines 31-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a 30 to 60 second interval time with the multicast video-on-demand system of SAM. One of ordinary skill in the art would have been motivated to do so for the purpose of allowing a user to select and view a movie instantaneously rather than at a predetermined and scheduled start time (Col 1 lines 21-30 and 53-56).

Conclusion

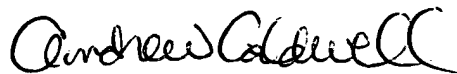
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant Ford whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharja can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gmf



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER